

THE RELATIONSHIP OF PARTICIPATION IN EXTRACURRICULAR ACTIVITIES
TO STUDENT ACHIEVEMENT, STUDENT ATTENDANCE, AND STUDENT
BEHAVIOR IN A NEBRASKA SCHOOL DISTRICT

by

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The purpose of this study was to examine possible relationships between participation in extracurricular activities and student achievement, participation in extracurricular activities and attendance, and participation in extracurricular activities and behavior. The setting for this study was a high school in western Nebraska. Data for 275 of the school district's 2007-2008 and 2008-2009 high school graduates were obtained from the high school activities office and the school district's student management system. Ten research hypotheses were tested using appropriate statistical analyses.

Relationships were found for five research hypotheses:

- Students who participated in extracurricular activities had higher grade point averages than students who did not participate.
- Students who participated in extracurricular activities had a higher rate of school attendance than students who did not participate.
- Students who participated in only sport activities received more disciplinary referrals than students who participated in only non-sport activities.
- Students whose families have a higher level of socio-economic status were more likely to participate in extracurricular activities.

- White students were more likely to participate in extracurricular activities than Hispanic and other racial ethnic backgrounds.

No relationships were found for five research hypotheses:

- Between grade point averages of students who participated in only sports activities and grade point averages of students who participated in only non-sport activities.
- Between attendance of students who participated in only sports activities and attendance of students who participated in only non-sport activities.
- Between participation in extracurricular activities and disciplinary referrals.
- Between grade point averages of students who participated in only sports activities, grade point averages of students who participated in only non-sport activities, and grade point averages of students who participated in both sport and non-sport activities.

Between attendance of students who participated in only sport activities, attendance of students who participated in only non-sport activities, and attendance of students who participated in both sport and non-sport activities.

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Table of Contents

Chapter 1 – Introduction	1
Background	1
Setting of the Study	2
Statement of the Problem	2
Research Questions	3
Definition of Terms	4
Variables and Their Measures	8
Significance of the Study	8
Chapter 2 – A Review of the Literature	10
Introduction	10
Cocurricular Versus Extracurricular	10
Value of Extracurricular Activities	11
Effect on Student Well-Being	14
Extracurricular Activity Participation in Rural Communities	18
Information about the Setting for the Study	20
Summary	22
Chapter 3 – Research Method	23
Research Design	23
Research Hypotheses	23
Population and Sample	26
Data Collection	28
Data Analysis	28
Delimitations and Limitations	29

Chapter 4 – Results of the Study.....	30
Introduction.....	30
Findings.....	30
Research Hypothesis #1	30
Research Hypothesis #2	32
Research Hypothesis #3	32
Research Hypothesis #4	33
Research Hypothesis #5	34
Research Hypothesis #6	35
Research Hypothesis #7	36
Research Hypothesis #8	37
Research Hypothesis #9	38
Research Hypothesis #10	39
Summary	40
There were Relationships Found for Five Research Questions	40
There were No Relationships Found for Five Research Questions	41
Chapter 5 – Summary, Conclusions, and Recommendations	44
Introduction.....	44
Discussion of Findings.....	45
Research Question #1	45
Research Question #2	46
Research Question #3	47
Research Question #4	48
Research Question #5	49

Research Question #6	49
Research Question #7	50
Research Question #8	51
Research Question #9	52
Research Question #10	53
Conclusions.....	54
Recommendations.....	56
References.....	58
Appendices.....	61

List of Tables

Table 1	High School Letter Grade Scale	6
Table 2	Preliminary Research of Student Participation Data	28
Table 3	Conference Schools Participation Data – 2007-2008 and 2008-2009 School Years	31
Table 4	GPA and Attendance Mean and Standard Deviation for Participants in Extracurricular Activities.....	37
Table 5	Student Participation in Extracurricular Activities and Participation in the Free and Reduced Price Lunch Program	38
Table 6	Student Participation in Extracurricular Activities and Student Race.....	39

List of Appendices

Appendix A	Superintendent Approval Letter.....	61
Appendix B	Institutional Review Board Approval Letter.....	63

Chapter 1

Introduction

Background

Extracurricular activities, those planned experiences outside the formal curriculum, are often touted as providing teachers and students a unique opportunity to expand beyond the typical classroom instruction (Posner, 1995). The rhetoric claims extracurricular activities allow participants to formulate a greater connectedness to their school and teachers/coaches/sponsors, which ultimately results in greater achievement and motivation. Further, relationships with peers, and even more importantly, with teachers/coaches/sponsors, are built through participation in extracurricular activities. According to Sidorkin (2002), “Learning is a function of relation; therefore, educators should pay close attention to it” (p. 2). As Sidorkin claimed, establishing relationships is the most critical aspect of teaching and learning and go a long way in determining your effectiveness as a teacher. Many times, coaches and sponsors are also teachers in the building in which they are providing guidance for an extracurricular activity; therefore, this additional time presents experiences to those involved which are simply not possible for a 50 minute class session.

The value of extracurricular activities in student athletes’ lives is an area of education that I was very interested in conducting in depth research. I am currently a middle school assistant principal. In addition to my administrative duties, I am an assistant basketball coach for the high school boys’ basketball team. Throughout my career in education, I have been a teacher, an athletic coach at both the middle school level and high school level, and an assistant sponsor of a high school business club.

Throughout all of these experiences, the one thing that has seemed clearly evident to me is the tremendous value extracurricular activities play in the educational process. It is not an overstatement to say that some students only attend school because of the opportunity to participate in an extracurricular activity or activities. The combination of my strong interest in researching student participation in extracurricular activities and my passion for extracurricular activities led me to designing a dissertation in this area.

Setting of the Study

The setting for this study was a mid-sized high school in a western Nebraska town. The population of the town was approximately 14,800 people. The school district was comprised of five elementary buildings, one middle school, and one high school. The enrollment for the district was nearly 2,900 students. The high school's enrollment was approximately 850 students and the middle school's enrollment was around 570 students. The district's student population included approximately 61% White students, 33% Hispanic students, 5% Native American students, less than 1% Asian students, and less than 1% Black students. About 44% of the district's students participated in the free and/or reduced price lunch program (Nebraska Department of Education, 2009).

Statement of the Problem

Previous research has indicated that student participation in extracurricular activities has a positive effect on student academic achievement, attendance, and behavior. However, it was relatively unknown as to whether there was a difference in academic achievement, attendance, and behavior between students who participate only in sport activities and students who participate only in non-sport activities.

The purpose of this study was to examine possible relationships between participation in extracurricular activities and student achievement, participation in extracurricular activities and attendance, and participation in extracurricular activities and behavior.

Research Questions

1. Is there a difference between the grade point averages of students who participated in extracurricular activities and the grade point averages of students who did not participate in extracurricular activities?
2. Is there a difference between the grade point averages of students who participated in only extracurricular sport activities and the grade point averages of students who participated in only extracurricular non-sport activities?
3. Is there a difference between the attendance of students who participated in extracurricular activities and the attendance of students who did not participate in extracurricular activities?
4. Is there a difference between the attendance of students who participated in extracurricular sport activities and the attendance of students who participated in extracurricular non-sport activities?
5. Is there a difference between the behavior of students who participated in extracurricular activities and the behavior of students who did not participate in extracurricular activities?

6. Is there a difference between the behavior of students who participated in extracurricular sport activities and the behavior of students who participated in extracurricular non-sport activities?
7. Is there a difference in the grade point averages of students who participated in extracurricular sport activities, the grade point averages of students who participated in extracurricular non-sport activities, and the grade point averages of students who participated in both?
8. Is there a difference in the attendance of students who participated in extracurricular sport activities, the attendance of students who participated in extracurricular non-sport activities, and the attendance of students who participated in both?
9. Is there a difference in student participation in extracurricular activities based on socio-economic status?
10. Is there a difference in student participation in extracurricular activities based on race?

Definition of Terms

Extracurricular Activities—According to Posner (1995), “The extra curriculum comprises all those planned experiences outside of the school subjects. It contrasts with the official curriculum by virtue of its voluntary nature and its responsiveness to student interests” (p. 12). Extracurricular activities are those activities outside of the typical classroom setting that provide students the opportunity to learn lessons in teamwork, sportsmanship, competition, time management, etc. Extracurricular activities include sports, fine arts, cheerleading, dance, etc.

Nebraska School Activities Association (NSAA)—The Nebraska School Activities Association oversees Nebraska high school activities. According to the mission statement of the Nebraska School Activities Association (2009),

The public and non-public high schools of Nebraska voluntarily agreed to form the Nebraska School Activities Association for the following purposes:

- To formulate and make policies which will cultivate high ideals of citizenship, fair competition, sportsmanship and teamwork which will compliment the member schools' curriculum programs.
- To foster uniformity of standards in interscholastic activity competition.
- To organize, develop, direct and regulate an interscholastic activity program which is equitable and will protect and promote the health and physical welfare of all participants.

Sport Activities—For the purpose of this study, sport activities will be defined as those sports governed by the NSAA. The “Population and Sample” section in Chapter 3 includes a specific breakdown of the sport activities studied.

Non-Sport Activities—For the purpose of this study, non-sport activities will be defined as those activities which are not sports and are governed by the NSAA. For example, non-sports may include activities such as debate, journalism, and vocal music. The “Population and Sample” section in Chapter 3 includes a specific breakdown of the non-sport activities studied.

Dual Participation—Dual Participation was defined as a student participating in both an NSAA sponsored sport and non-sport activity during their senior year. This classification was used specifically in the “Population and Sample” section in Chapter 3.

No-Record—Students falling into the “No Record” group were included in the senior list which was comprised in the spring semester of students’ senior year, but not included in a fall report to NSAA by the school. This classification was used specifically in the “Population and Sample” section in Chapter 3.

Grade Point Average (GPA)—Grade point average calculations for students at the high school level begin with the students’ freshman year. The high school uses a 4.0 GPA scale. For the purpose of this study, students’ grade point averages for only their senior year were analyzed. Table 1 displays the letter grade scale used to compute students’ grade point average.

Table 1

High School Letter Grade Scale

Numeric Grade	Letter Grade	GPA Equivalent
90-100	A	4.0
80-89	B	3.0
70-79	C	2.0
60-69	D	1.0
0-59	F	0.0

Disciplinary Referrals—Disciplinary referrals are those incidents in which a student has exhibited behavior that violated a high school expectation for student behavior. Disciplinary referrals result in formal action by building administration. Formal action may include a consequence such as formal warning, detention, in-school suspension, out-of-school suspension, or expulsion.

Student Attendance—Student attendance was taken by the classroom teacher for each period of the school day. The high school was on an alternating, A-B, block schedule with a 20-minute Home Room period between the first two periods of the day. For example, students have four 90 minute classes on Monday, Wednesday, and Friday,

and then four different 90 minute classes on Tuesday and Thursday. The schedule alternates the following week. Student attendance records collected for the data analysis include both excused and unexcused absences. Student absences from school must be excused by a parent/guardian within 48 hours of the absence or the absence will remain unexcused (truant). An unexcused absence (truant) was defined as a student not being present in class without notification from a parent/guardian. A student may also be considered truant if they are more than 20 minutes late to class. The following reasons for absence from school are coded as exempt in the school district's student management system; therefore, they are excluded from the student attendance record data for this study and do not decrease student attendance time at school:

- School Sponsored Activities (i.e., music performance, athletic event, etc.)
- Administrative Excused (Funeral, Bereavement, 504/IEP Meetings, Counselor Meetings)
- Spectator Attendance at State Event (Student must check in with administrator.)

The following are details about the process of figuring student attendance which are unique to this study:

- The 2007-2008 school year was the first year of implementation for the Home Room period; thus, it was a trial year and attendance was not recorded. Attendance was recorded for Home Room during the 2008-2009 school year.
- Absences related to a student being assigned in-school suspension or out-of-school suspension decrease student attendance time at school.

Variables and Their Measures

In order to compare student achievement data for recent high school graduates between student participants in sport activities versus non-sport activities and grade point averages, attendance, behavioral issues, socio-economic status, and race, five variables were measured and statistical tests were conducted to find if there were any relationships to student participation in sport activities and student participation in non-sport activities. Students' grade point averages, students' attendance, and students' behavioral referrals in school were compared to determine if there were differences for students participating in sport activities and non-sport activities. Additionally, possible relationships between students' socio-economic status and race were explored for student participation in extracurricular activities. Data for these variables was obtained from the high school activities office and the school district's student management system, Infinite Campus.

Significance of the Study

This study was aimed toward adding to the literature of the value of student participation in extracurricular activities. In a time of school district budget constraints, if a study of this nature can provide evidence that student participation in sport and/or non-sport activities has a positive effect on student achievement, then school districts may be more likely to continue to provide financial support of these programs. Additionally, the completed study allows school board members, administrators, teachers, and coaches/sponsors the opportunity to better understand how student participation in sport activities compares to non-sport activities. Nevertheless, if the results of this study had shown that participation in sport activities had a more significant relationship to student achievement, student attendance, and student behavior than

participation in non-sport activities, or vice versa, then school district officials may take this information into account when considering budget cuts. The results of this study are not intended to be used when making decisions on whether or not to eliminate programs, but rather to provide school district officials with general information in this area.

Furthermore, the data from this study may help in identifying programs that may not always receive the respect they deserve. There was no better time than the present to study the value of high school extracurricular activities and the role they play in enriching a student's high school experience.

Chapter 2

A Review of the Literature

Introduction

The review of selected literature presented in this chapter has been divided into five sections: (a) Cocurricular Versus Extracurricular, (b) Value of Extracurricular Activities, (c) Effect on Student Well-Being, (d) Extracurricular Activity Participation in Rural Communities, and (e) Information about the Setting for the Study.

Cocurricular Versus Extracurricular

The National Association of Secondary School Principals in partnership with the Carnegie Foundation for the Advancement of Teaching on the high school of the 21st century published a report titled, *Breaking Ranks: Changing an American Institution*, in 1996. Included in the report are eight recommendations for the high school curriculum of the 21st century. Recommendation #7 states, “The high school will promote cocurricular activities as integral to an education, providing opportunities for all students that support and extend academic learning.”

According to the NASSP (1996), “The concept of ‘extracurricular’ serves no useful purpose. Anything extra occupies a position peripheral to the school’s main mission. We propose to scrap this outmoded term and instead call these activities ‘cocurricular,’ emphasizing that they are integral to the educational program” (p. 18). The rationale for such change can be found in the connotation of the term “extra,” which may suggest to some that these activities do not serve a legitimate, essential purpose in the educational process. Changing the terminology of such activities to “cocurricular,” regardless if they are tied to academic credits, shows that these activities have a

legitimate connection to high school courses and the purpose of schooling. According to the NASSP (1996), “A high school properly provides for social and personal needs, as well as for those that are strictly academic. Given the benefits that students can obtain, high schools should promote cocurricular activities for all students” (p. 18).

In addition to a change in terminology, the NASSP states that these activities should be evaluated based on the support they provide for the school’s goals. Similar to a teacher being held accountable for the instruction provided in their classroom, sponsors of activities should be held accountable for ensuring “that connections to learning exist” (NASSP, 1996, p. 18). Additionally, the report suggests that high schools should promote student participation in activities because of the benefits students are able to obtain through participation (NASSP, 1996).

For the purpose of this study, the term “extracurricular” will be used; however, *Breaking Ranks: Changing an American Institution* presents a valuable report and valid argument for changing the terminology used for extracurricular activities. A change of this nature may also provide for a change in the perception toward these activities. Unfortunately to some, participation in extracurricular activities is truly “extra.” The majority of research in this area uses the terminology “extracurricular;” therefore, this study will use that terminology.

Value of Extracurricular Activities

Every year, millions of high-school students across the nation are faced with the decision of deciding whether they want to participate in extracurricular activities. O’Brien and Rollefson (1995) stated that extracurricular activities, including fine arts, interscholastic athletics, cheerleading, academic clubs, honor societies, provide students

with the opportunity to develop the value of teamwork, the value of individual and group responsibility, and a sense of community. Furthermore, these activities provide a way to reinforce lessons being taught in the classroom and apply academic skills to real-world situations. Nevertheless, the value of extracurricular activities was an intriguing issue and a controversial topic when it comes to school budgets.

According to the National Federation of State High School Associations (2004),

At a cost of only one to three percent (or less in many cases) of an overall school's budget, high school activity programs are one of the best bargains around. It is in these vital programs—sports, music, speech, drama, debate—where young people learn lifelong lessons as important as those taught in the classroom. (Section I, para. 1)

When parents think of their student being involved, they generally think of sports.

However, there are several other vital programs where students can obtain lifelong lessons as valuable as those being taught in the classroom, including music, speech, drama, debate, and educational clubs.

Students' academic achievement, specifically grade point average (GPA) and school attendance, are significantly affected by participation in extracurricular activities (McCarthy, 2000; O'Brien & Rollefson, 1995; Rombokas, Heritage, & West, 1995).

Studies have shown academic achievement can be both positively and negatively affected by student participation.

Rombokas et al. (1995) stated that participation in extracurricular activities leads to an increase in academic achievement. According to McCarthy (2000),

In the Spring of 1997, all high schools in the largest school district in Colorado were contacted to participate in a project which sought to examine whether students who participated in school-sponsored activities were different from non-participants on grade point averages (GPAs) and on school attendance. (p. 410)

Of those students who participated in the study, the students who participated in student activities had significantly higher GPAs and significantly lower absenteeism.

Additionally, this study examined specific extracurricular activities, sport participation versus non-sport participation. “Those students who participate in sports activities have higher GPAs than those who do not participate and those who participate in non-sport activities” (McCarthy, 2000, p. 421). According to a study completed by O’Brien and Rollefson (1995), students who participated in extracurricular activities reported better attendance and were three times as likely to have a GPA of 3.0 or higher than their nonparticipating classmates. Obviously, the statistical evidence shows that school-sponsored activities have a positive effect on a student’s grade point averages and attendance record.

Aikin (1942) stated that there is statistical evidence that students involved in extracurricular activities are less likely to drop out of high school and are more likely to attend college. Eide and Ronan (2001) stated that participation in interscholastic athletics decreases the possibility of dropping out of high school by 8.6% and significantly increases the chance of attending and graduating from college. Furthermore, Owings, McMillan, and Burkett (1995) stated that students may increase their chances of getting accepted into a particular college by participating in extracurricular activities, as there are a limited number of students who meet the selective criteria, including extracurricular activity participation, used by colleges’ admissions programs. Therefore, it is clearly evident that extracurricular involvement not only enhances high school academic achievement, but may also effect post high school education.

Although the majority of research shows a positive correlation between academic achievement and involvement in extracurricular activities, there is evidence that the correlation is non-existent. According to Call (1974), “It should be of interest to educators, that extracurricular involvement, regardless of its nature, (work, athletics, clubs, or whatever) seems to have no effect on academic achievement” (p. 10). This study also indicated that there would probably be no adverse effect on academic achievement. Although minimal, there is research stating that involvement in extracurricular activities does not always have a positive impact on those participating. Overall, the research clearly shows that school-sponsored activities have a positive effect on a student’s grade point averages and attendance record.

Most research has found that participation in extracurricular activities substantially benefits those involved; very little research has found that participation has a negative impact. Students’ academic achievement, specifically grade point average and school attendance, have been considerably better for participants compared to non-participants (McCarthy, 2000; O’Brien & Rollefson, 1995; Rombokas et al., 1995). Overall, it seems that extracurricular activities can serve to be very useful in generating greater student motivation.

Effect on Student Well-Being

A student’s emotional well being could be influenced in various ways through participation in extracurricular activities. Self-esteem, school connectedness, behavior, and relationships with peers and adults are all shown to be affected by a student’s participation in extracurricular activities. Both positive and negative effects have been found through numerous studies.

According to Steitz and Owen (1988), a student's self-esteem was not substantially affected by participation in extracurricular activities. However, Phillips (1969, as cited in Steitz & Owen, 1988) stated that these findings conflicted with previous studies in which participation was significantly related to self-concept. Nevertheless, there is a considerable amount of research that correlated the effect of student participation and the many intricacies of one's self-esteem.

Feeling a sense of connection to the school that one attends is crucial in establishing that person's level of comfort at school. According to Mahoney (2000) and Mahoney and Cairns (1997), "Participating in an extracurricular activity connects students more deeply to the school, its faculty, a peer group, and school values" (Mahoney, 2000; Mahoney and Cairns, 1997, as cited in Holloway, 2002, p. 80). The chance of a student using substances, engaging in violence, or becoming sexually active at a young age decreases if he or she feels connected to his or her school (McNeely, Nonnemaker, & Blum, 2002). Being connected to the school that one attends is obviously critical; however, there are some negative implications of some connections that are formed through participation.

Evidence shows that participation in extracurricular activities might lead to increased alcohol use. Eccles and Barber (1999) found a link between those students participating in extracurricular activities, specifically team sports, and an increase in the involvement of alcohol use. Although some studies have shown a negative effect on those students participating in team sports, other studies have shown that participation can lead to better behavior overall. Students involved in extracurricular activities are less likely to be involved in a wide variety of risky behaviors in comparison to their peers

who are not actively involved; Astroth and Haynes (2002) found that “non-active students were more likely to report that they drink alcohol, shoplift, purposely damage property, use drugs to get high, smoke cigarettes, and engage in other at-risk behaviors” (p. 4). Controversy obviously exists on the true effects that might occur from participating in extracurricular activities. However, there are more studies that showed, in general, the likelihood of risky-behavior occurring is diminished by student participation (Astroth & Haynes, 2002; Holloway, 2002; McNeely et al., 2002.)

According to the literature reviewed, if a student is genuinely interested in and enjoys being at school everyday, they are more apt to possess an open mind in the classroom and yearning to succeed. Therefore, developing meaningful relationships will be much easier to establish with a student who possesses a greater school connectedness and willingness to be at school than one who has little desire to be there.

According to Mahoney (2000) and Posner and Vandell (1999), “research supports the notion that high-quality extracurricular activities build relationships between students and the competent, responsive adults who supervise such activities” (Mahoney, 2000; Posner & Vandell, 1999, as cited in Holloway, 2002, p. 80). The relationships that are formed between extracurricular activity sponsors and participants are typically stronger than those formed in the classroom. Fifty minutes a day does not allow a high quality relationship to be formed the way extracurricular activity sponsorship does. In an Astroth and Haynes (2002) study of 4-H members, they concluded that adults view the 4-H members as valuable assets in the community and that the involved students are given many opportunities to improve their communities. Therefore, not only are quality

relationships being formed with adults, but a greater amount of respect is garnered by actively involved students.

In addition to forming quality relationships with adults, participation in extracurricular activities also allows for a student to form relationships with their peers. According to McNeal (1995), by participating in an extracurricular activity, a below average or average student can associate with a more “elite” sector of the student population who ultimately have better attitudes toward school (Holloway, 2002). Furthermore, the effect that participation can have on motivational theories is documented. According to Baumeister and Leary (1995), Connell and Wellborn (1991), and White (1959), there are two primary reasons students participate in extracurricular activities:

The two most common reasons adolescents reported participating in their activity is that they were good at it and that their friends were involved. These results support motivational theories that stress an individual’s need including (a) the need for competence, or feeling effective in interacting with the environment; and (b) the need for relatedness, or having close relationships and feeling securely connected to the social world. (Baumeister & Leary, 1995; Connell & Wellborn, 1991; White, 1959, as cited in Fredericks et al., 2002, p. 91)

Erikson (1965/2000) stated that forming relationships with one’s peers is an essential part of satisfying one’s individual needs, and it is evident that participating in extracurricular activities is an effective way to meet those needs.

The literature reviewed indicates that establishing meaningful relationships through extracurricular activity interaction can be beneficial to a student’s emotional well being and can improve student achievement. For example, for students who have a liking for a particular teacher for a various reason(s) will show a greater interest in that teacher’s class; thus, assist in grasping that student’s interest in the subject matter.

Extracurricular Activity Participation in Rural Communities

Rural versus urban? Parents are often faced with the decision of where they want to raise their families. There are many factors involved in the decision on where a family resides. Critical issues involved in the decision-making process may include job opportunities, prevalence of crime, quality of life, entertainment opportunities, and quality of education. The setting for this study takes place in a rural area of western Nebraska. The community is a regional center for many small surrounding communities, which means that the services provided in this community are not typical of those generally provided in a town with a population of approximately 14,800 people. This section of the literature review will examine the existing literature on extracurricular activity participation in rural communities.

According to the National Center for Educational Statistics (1995), “Rural education has been called inferior when compared to urban education. Research has identified gaps between urban and rural schools that may put rural youth at a disadvantage in a global economy” (National Center for Educational Statistics, 1995, as cited in Bajema, Miller, & Williams, 2002, p. 61). Some have argued that these gaps are the result of rural schools having limited resources which results in fewer educational programs being offered. Others have stated that rural schools provide a lower student to teacher ratio.

Earlier review of the literature examined the affect that student participation has on a student’s emotional well being. Research on rural education has focused on this aspect of extracurricular activity participation in rural high schools. Students who participate in extracurricular activities in rural communities have greater opportunity to

have their participation in events published in newspapers, broadcast on radio, and covered by local television, while media coverage of high school events may not be a priority in urban areas. For example, urban areas provide more coverage of professional and college events, whereas rural areas lacking professional or urban teams provide significant coverage of their local high schools. Bajema et al. (2002) stated that the coverage provided by the media in rural communities provides students with recognition and attention, which creates a sense of self-worth, achievement, importance, and pride in their community.

Previous studies on the rates of participation in extracurricular activities in rural versus urban schools have shown that rural schools have a much higher rate of participation than urban schools ([Grabe, 1981; Rogers, 1987; Scoggen, 1984] as cited in Stevens & Peltier, 1994; Nachtigal, 1982, as cited in Bajema, Miller & Williams, 2002). A study by Scoggen (1984, as cited in Stevens & Peltier, 1994) examined the participation rates in extracurricular activities of nearly 9,000 seniors in 24 suburban and rural high schools (class size ranging from 21 to 622 students) in New York; “students in smaller high schools were found to participate in the extracurricular activities at a much higher rate than did the students from large high schools” (Scoggen, 1984, as cited in Stevens & Peltier, 1994, p. 116). According to Larsen (1949), “Students in large high schools reported to have had taken part in far fewer extracurricular activities than did students in small schools. Larsen also noted that, in contrast to students in small schools, students from large schools reported having difficulty getting in various activities” (Larsen, 1949, as cited in Stevens & Peltier, 1994, p. 116). The review of literature indicates that small schools have higher participations rates of students in extracurricular

activities than their large school counterparts; one may wonder the reason(s) for this difference.

According to Downey (1978), “the higher degree of extracurricular involvement in small schools was primarily the result of a greater opportunity to participate, and that small schools generate the feeling that every student is needed in the ecological system characteristic of small schools” (Downey, 1978, as cited in Stevens & Peltier, 1994, p. 118). Additional studies have concluded that students themselves can detect that their participation is necessary for continued successful operation of extracurricular programs (Scoggen, 1984, as cited in Stevens & Peltier, 1994). In a study completed by Stevens (1992), conclusions were formulated through interviews with the principals of 12 small schools that the students in their schools sense greater opportunity to participate due to fewer students, specifically in sports programs (Stevens & Peltier, 1994).

Information about the Setting for the Study

The setting for this study was a high school of approximately 850 students located in western Nebraska. Extracurricular activity coaches/sponsors positions have been both paid and volunteer. The paid coaches/sponsors have been on one-year contracts, which could have been renewed on an annual basis with no guarantee that the coach/sponsor would get their position back. Extracurricular activity coach/sponsor contracts have been issued through the activities office. Head coach/sponsor positions have been hired by the Activities Director or building principal. Assistant extracurricular activity positions have been selected by the head coach/sponsor with the activities director’s approval. Compensation for extracurricular coaches/sponsors depends on the position being filled and their number of years experience in the position. An “Extra-Standard Services” pay

schedule has been included in the certified staff's negotiated agreement. The negotiated agreement was approved by the school district's education association and by the school board.

Extracurricular activities have been funded from a variety of sources. Athletics have been funded by gate receipts, money allocated from the general fund, high school booster club, and the individual head coaches have had fundraising accounts. Non-sport activities, such as Speech, have had pop machines at the high school, sold concessions, and have done other fundraising activities to generate revenue. The money allocated from the general fund pays for transportation and the workers required to host activities, i.e. officials, ticket takers, score keepers, clock operators, etc.

The activities director for the school district scheduled all athletic events, with the exception of football, which was scheduled by the NSAA. The procedure for scheduling athletic events was as followed: The district's activities director contacts the activities director of the school in which they are hoping to schedule. The district's activities director and the opposing school's activities director agree on a contract, the majority of the time a home and away game is scheduled. Occasionally, there are certain situations that arise, for example in tennis; a few schools all come to the invitational hosted by the district so the high school tennis team goes to their school for a dual every year. The sponsors of speech, one-acts, band, and vocal music schedule their competitions and/or concerts.

Scheduling of extracurricular activities for this particular school district was very difficult because of their geographic location; consequently, school officials were forced to schedule competitions and events across state lines. When scheduling across state

lines, the issue arose that there is no guarantee for issued contracts. If a school across state lines breaks a contract there are no repercussions; however, if a school in Nebraska breaks a contract the school affected can receive support from the NSAA.

Summary

The review of selected literature has provided evidence of a positive correlation between student participation in extracurricular activities and academic achievement, specifically grade point average and attendance, a decrease in the likelihood of a student dropping out of high school, and an increase in their chances of attending college.

Nevertheless, there is some research stating there is no effect on academic achievement for student participants. Some literature stated that student participants' emotional well being may also be influenced through participation in extracurricular activities. For example, student participation was shown to enhance a student's connectedness to their school and foster stronger relationships with peers and adults. However, there were conflicting bodies of research documenting positive and negative affects on a student's well-being in the form of participation in risky behaviors such as alcohol use.

Additionally, the research indicates that rural/small schools have a higher rate of participation in their extracurricular activity programs than urban/large schools. The setting of the study provides a comprehensive extracurricular activity program that operates in a similar manner to other high schools in Nebraska. However, the setting is somewhat unique due to its geographic location.

Chapter 3

Research Method

Research Design

According to Creswell (2009), “Quantitative research is a means for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures” (p. 4). Nevertheless, in order to grasp a true understanding of whether a difference exists in student achievement, student attendance, and student behavior among students who participate in sport activities and students who participate in non-sport activities, it is necessary to conduct a quantitative study in which descriptive data can be obtained and analyzed. This study will be a quantitative study of existing student information in a school district data base.

Research Hypotheses

1. There is a difference between the grade point averages of students who participated in extracurricular activities and the grade point averages of students who did not participate in extracurricular activities. The independent variable was student groups, and the dependent variable was grade point averages. A t-test was used to test for differences between the two groups.
2. There is a difference between the grade point averages of students who participated in only extracurricular sport activities and the grade point averages of students who participated in only extracurricular non-sport activities. The independent variable was student groups, and the dependent

variable was grade point averages. A t-test was used to test for differences between the two groups.

3. There is a difference between the attendance of students who participated in extracurricular activities and the attendance of students who did not participate in extracurricular activities. The independent variable was student groups, and the dependent variable was attendance. A t-test was used to test for differences between the two groups.
4. There is a difference between attendance of students who participated in extracurricular sport activities and the attendance of students who participated in extracurricular non-sport activities. The independent variable was student groups, and the dependent variable was attendance. A t-test was used to test for differences between the two groups.
5. There is a difference between behavior of students who participated in extracurricular activities and the behavior of students who did not participate in extracurricular activities. The independent variable was student groups, and the dependent variable was disciplinary referrals. A nonparametric Mann-Whitney U-test was used to test for differences between the two groups.
6. There is a difference between behavior of students who participated in extracurricular sport activities and the behavior of students who participated in extracurricular non-sport activities. The independent variable was student groups, and the dependent variable was disciplinary referrals. A nonparametric Mann-Whitney U-test was used to test for differences between the two groups.

7. There is a difference in the grade point averages of students who participated in extracurricular sport activities, the grade point averages of students who participated in extracurricular non-sport activities, and the grade point averages of students who participated in both. The independent variable was student groups, and the dependent variable was grade point averages. Analysis of variance was used to test for differences between the three groups.
8. There is a difference in the attendance of students who participated in extracurricular sport activities, the attendance of students who participated in extracurricular non-sport activities, and the attendance of students who participated in both. The independent variable was student groups, and the dependent variable was attendance. Analysis of variance was used to test for differences between the three groups.
9. There is a difference in student participation in extracurricular activities based on socio-economic status. The independent variable was student groups and the dependent variable was socio-economic status, which was determined by the following school lunch criteria: Free, Reduced, Pay. A chi-square analysis was used to test for differences between the three groups.
10. There is a difference in student participation in extracurricular activities based on race. The independent variable was student groups and the dependent variable was race, which was determined by the following five categories used for Nebraska Department of Education reports: White Not Hispanic, Asian/Pacific Islander, Hispanic, American Indian/Alaskan Native, and Black

Not Hispanic. A chi-square analysis was used to test for differences between the five groups.

Population and Sample

The 2007-2008 and 2008-2009 high school graduates of a Nebraska school district served as the study population. The following students were excluded from the population in order to maintain consistency within the data analysis:

- Students who were promoted to their senior year at semester based on credit hours earned.
- Students who graduated at semester. These students would not have two full semester GPAs. Furthermore, these students would not have the same number of days of school possible to attend as a student who graduated in May in order to accurately compare attendance records.
- Students who moved in or out of the high school during the year were excluded for the same reason as students who graduated at semester.
- Students who attended an alternative school since they are unable to participate in NSAA sponsored activities.

The study was not limited to just those students involved in extracurricular activities, because a comparison of the results for participants and non-participants was also conducted. In order to provide for a uniform basis of activities to study, only Nebraska School Activities Association sponsored activities were included in the study. The following page shows a breakdown of Nebraska School Activities Association sponsored sport and non-sport activities offered at this particular high school which were included in the study.

Sports

Boys and Girls Cross Country

Boys and Girls Golf

Boys and Girls Tennis

Football

Volleyball

Softball

Boys and Girls Basketball

Boys and Girls Swimming and Diving

Wrestling

Boys and Girls Soccer

Boys and Girls Track and Field

Non-Sports

Debate

Journalism

Instrumental Music

Play Production

Speech

Vocal Music

** NOTE: The only NSAA sponsored activity not offered is baseball.

There were a significant number of students who participated in both sport and non-sport activities. For the primary purpose of this study, only student data for those students who participated in one or the other (sport or non-sport) type of activity was compared. Permission to complete this study was obtained from the current superintendent of schools, and the research procedures were approved by the University of Nebraska-Lincoln Institutional Review Board (IRB) (see Appendices).

In order to determine the feasibility of this study, some preliminary research was completed. A list of students from the 2008 and 2009 high school graduating classes was obtained as well as NSAA sponsored activity participation data. Students were identified as being in one of five groups: Dual Participation, No Participation, Non-Sport Participation, Sport Participation, and No Record. Table 2 summarizes how many students fell into each aforementioned participation group.

Table 2

Preliminary Research of Student Participation Data

	2009 Senior Class	2008 Senior Class
Dual Participation	23	23
No Participation	104	97
Non-Sport Participation	34	26
Sport Participation	29	37
No Record	5	9
Total Seniors	195	192

Data Collection

As stated above, data for these variables were obtained from the high school activities office and the school district's student management system, Infinite Campus. All head coaches and sponsors for NSAA sponsored activities were required to submit a roster of the participants to the activities office. The activities office then input these rosters into the NSAA eligibility lists. Participants' names for the NSAA sponsored activities being studied were obtained from the NSAA eligibility lists. Student attendance records, grade point averages, behavioral information, race, and socio-economic status was obtained from the district's student management system. After all necessary data were collected, it was disaggregated accordingly.

Data Analysis

The data analysis component of this study was a combination of descriptive and inferential statistics. A portion of the study includes descriptive statistics; however, the primary focus of the study was conducting a comparison in which differences between

two groups of students (sport participants versus non-sport participants) were explored. Therefore, most of this study involved inferential statistics.

Statistical tests were used to identify whether or not a difference existed for student participation in extracurricular activities based on socio-economic status and race. Socio-economic status was measured by whether a student was classified as free, reduced, or paid within the school lunch program. Race was divided into the five categories used for Nebraska Department of Education reports: White Not Hispanic, Asian/Pacific Islander, Hispanic, American Indian/Alaskan Native, and Black Not Hispanic. Because of the fact that both variables are categorical, a chi-square test was used to analyze socio-economic status and race.

Delimitations and Limitations

There were several delimitations and limitations of the study:

- The study was delimited to one school district; however, the school district is one of the largest Class B schools in the NSAA classification system. The fact that the study was completed in one school district limits ability to accurately generalize the data analysis.
- The study was delimited to students graduating in 2007 and 2008 from one high school. Results might not be representative of graduates in other years or graduates from other high schools.
- The study was delimited to lists of sport participants and non-sport participants and was delimited to the rosters submitted by the coaches and sponsors and maintained by the high school. The results will be limited to the completeness and accuracy of the rosters that were used.

Chapter 4

Results of the Study

Introduction

The purpose of the study was to examine possible correlations between participation in extracurricular activities and student achievement, participation in extracurricular activities and attendance, and participation in extracurricular activities and behavior.

Findings

Participation data for the school included in this study and the five other schools in their conference was collected. Table 3 shows that there was a wide range of participants in sport and non-sport activities for the schools in this conference.

Research Hypothesis #1 – There is a difference between the grade point averages of students who participated in extracurricular activities and the grade point averages of students who did not participate in extracurricular activities.

T-test was used to analyze the differences in student grade point averages between those students who participated in extracurricular activities and those students who did not participate in extracurricular activities. Participants in extracurricular activities had a mean grade point average of 3.06, with a standard deviation of .789, whereas students who did not participate in extracurricular activities had a mean grade point average of 2.39 with a standard deviation of .789. As hypothesized, there is a difference in student grade point averages between those students who participated in extracurricular activities and those students who do not participate in extracurricular activities. Students

Table 3

Conference Schools Participation Data – 2007-2008 and 2008-2009 School Years

	12 th Grade Enrollment 07-08	Sport Participants 07-08	Non-Sport Participants 07-08	12 th Grade Enrollment 08-09	Sport Participants 08-09	Non-Sport Participants 08-09
School A	184	98 or 53.3%	73 or 39.7%	192	77 or 40.1%	86 or 44.8%
School B	147	104 or 70.7%	68 or 46.3%	157	96 or 61.1%	71 or 45.2%
School C	94	55 or 58.5%	56 or 59.6%	75	53 or 70.7%	50 or 66.7%
School D	63	53 or 84.1%	36 or 57.1%	66	61 or 92.4%	30 or 45.5%
School E	54	57 or 105.6%	31 or 57.4%	51	35 or 68.6%	33 or 64.7%
School F	151	81 or 53.6%	85 or 56.3%	119	75 or 63%	58 or 48.7%

Table 3 notes:

- School A is the school being studied in this project. The subject school has a lower participation rate than any other school.
- Enrollment figures were obtained from the *2008-2009 State of the Schools Report* on the Nebraska Department of Education website.
- Sport and non-sport participant numbers were calculated from information that was obtained from the Nebraska School Activities Association office.
- Sport and non-sport participant numbers are presented as a duplicated count. For example, a student may have been counted two or three times in the sport participant category for participating in multiple sports in a school year.
- The two schools with the lowest 12th grade enrollment in 2007-2008 (School D and School E) had the highest percentage of sport participants.
- School C had the highest percentage of non-sport participants over the two school years.

participating in extracurricular activities were found to have a significantly higher grade point average than those students who did not participate in extracurricular activities ($t(273) = -6.940, p < .001$).

Research Hypothesis #2 – There is a difference between the grade point averages of students who participated in only extracurricular sport activities and the grade point averages of students who participated in only extracurricular non-sport activities.

T-test as conducted to measure the difference in student grade point averages between those students who participated in only extracurricular sport activities and those students who participated in only extracurricular non-sport activities. Student grade point averages are computed on a 4.0 scale. A total of 119 students' grade point averages were examined, including 56 non-sport participants and 63 sport participants. Sport participants in extracurricular activities had a mean grade point average of 3.06, with a standard deviation of .797, whereas non-sport participants in extracurricular activities had a mean grade point average of 2.95 with a standard deviation of .763. Students' grade point averages of those participating in only extracurricular sport activities were not found to be significantly different than the grade point averages of those students who participated in only extracurricular non-sport activities ($t(117) = .769, p = .443$).

Research Hypothesis #3 – There is a difference between the attendance of students who participated in extracurricular activities and the attendance of students who did not participate in extracurricular activities.

T-test was used to compare the differences in student attendance between those students who participated in extracurricular activities and those students who did not participate in extracurricular activities. Student attendance was figured based on average

daily attendance (ADA), which can be displayed in percentages. Average daily attendance is computed by dividing a student's total number of days in attendance by the number of days in the school year. Additionally, ADA was utilized because it standardized the data better than the other data available for measuring student attendance, i.e. number of days absent from school. A total of 275 students' attendance data was analyzed, including 114 non-participants and 161 participants. Students who did not participate in extracurricular activities had a mean average daily attendance of .898 or 89.8% attendance with a standard deviation of .072, whereas participants in extracurricular activities had a mean average daily attendance of .943 or 94.3% attendance with a standard deviation of .053. Students who participated in extracurricular activities were found to have a significantly higher rate of school attendance than those students who did not participate in extracurricular activities ($t(195.635) = -5.618$, $p < .001$).

Research Hypothesis #4 – There is a difference between attendance of students who participated in extracurricular sport activities and the attendance of students who participated in extracurricular non-sport activities.

T-test was used to compare the differences in student attendance between those students who participated in only extracurricular sport activities and those students who participated in only extracurricular non-sport activities. Student attendance was figured based on average daily attendance (ADA), which can be displayed in percentages. Average daily attendance is computed by dividing a student's total number of days in attendance by the number of days in the school year. Additionally, ADA was utilized because it standardized the data better than the other data available for measuring student

attendance, i.e. number of days absent from school. A total of 119 students' attendance data was analyzed, including 56 non-sport participants and 63 sport participants. Sport participants in extracurricular activities had a mean average daily attendance of .940 or 94.0% attendance, with a standard deviation of .045, whereas non-sport participants in extracurricular activities had a mean average daily attendance of .934 or 93.4% attendance with a standard deviation of .067. Students participating in only extracurricular sport activities average daily attendance for attendance was not found to be significantly different than those students average daily attendance for attendance who participated in only extracurricular non-sport activities ($t(94.992) = .607, p = .545$).

Research Hypothesis #5 – There is a difference between behavior of students who participated in extracurricular activities and the behavior of students who did not participate in extracurricular activities.

A nonparametric Mann-Whitney U-test was used to analyze the differences in student behavior between those students who participated in extracurricular activities and those students who did not participate in extracurricular activities. The nonparametric test was used because of the non-normality of the data. The reason for the non-normality of the data was due to an ordinal count of data and the preponderance of zeros for students receiving a disciplinary referral in this set of student data. Disciplinary referrals are those incidents in which a student has exhibited behavior which violated a high school expectation for student behavior. A total of 275 students accumulation of disciplinary referrals were examined, including 114 non-participants and 161 participants. Students who did not participate in extracurricular activities had a median quality rating of 0 (IQR = 2-5.5), whereas participants in extracurricular activities also

had a median quality rating of 0 (IQR = 2-5.5). Students who did not participate in extracurricular activities had a median quality rating of 0 with an interquartile range (IQR) of 2-5.5, whereas participants in extracurricular activities also had a median quality rating of 0 with an interquartile range (IQR) of 2-5.5. Student behavior for participants in extracurricular activities was not found to be significantly different than student behavior for those who did not participate in extracurricular activities ($U = 8316.0$, $p = .099$).

Research Hypothesis #6 – There is a difference between behavior of students who participated in extracurricular sport activities and the behavior of students who participated in extracurricular non-sport activities.

A nonparametric Mann-Whitney U-test was used to analyze the differences in student behavior between those students who participated in only extracurricular sport activities and those students who participated in only extracurricular non-sport activities. The nonparametric test was used because of the non-normality of the data. Disciplinary referrals were used to measure student behavior. The reason for the non-normality of the data was due to an ordinal count of data and the preponderance of zeros for students receiving a disciplinary referral in this set of student data. Disciplinary referrals are those incidents in which a student has exhibited behavior which violated a high school expectation for student behavior. Students were identified as sport and non-sport participants based on their participation in NSAA sponsored activities. Students who participated in both sport and non-sport activities were not included in this analysis. A total of 119 students accumulation of disciplinary referrals were examined, including 56 non-sport participants and 63 sport participants. Students who participated in only extracurricular sport activities had a median quality rating of 0 with an interquartile range

(IQR) of 2-5.5, whereas participants in only extracurricular non-sport activities also had a median quality rating of 0 with an interquartile range (IQR) of 2-5.5. The accumulation of student disciplinary referrals for students participating in only extracurricular sport activities and students who participated in only extracurricular non-sport activities was found to be significantly different ($U = 1467.5$, $p = .044$). Students who participated in only extracurricular sport activities (mean office referrals of .57) received more office referrals than students who participated in only extracurricular non-sport activities (mean office referrals of .25).

Research Hypothesis #7 – There is a difference in the grade point averages of students who participated in extracurricular sport activities, the grade point averages of students who participated in extracurricular non-sport activities, and the grade point averages of students who participated in both.

An analysis of variance (ANOVA) was used to compute differences between student grade point averages for the three groups of students. Post hoc tests (Turkey HSD) were conducted to examine significance of statistical differences across groups. There was no significant difference in student grade point average between students who participated in extracurricular sport activities, students who participated in extracurricular non-sport activities, and students who were dual participants in extracurricular activities, $F(2, 158) = 1.316$, $p = .271$. Table 4 presents the mean (M) and standard deviation (SD) scores for each group of students.

Table 4

GPA and Attendance Mean and Standard Deviation for Participants in Extracurricular Activities

	(n)	GPA (M)	GPA (SD)	Attendance (M)	Attendance (SD)
Sport Participants	63	3.06	.797	94.0%	.045
Non-Sport Participants	56	2.95	.763	93.4%	.067
Dual Participants	42	3.21	.804	95.8%	.037

Research Hypothesis #8 – There is a difference in the attendance of students who participated in extracurricular sport activities, the attendance of students who participated in extracurricular non-sport activities, and the attendance of students who participated in both.

An analysis of variance (ANOVA) was used to compute differences between student attendance for the three groups of students. Post hoc tests (Turkey HSD) were conducted to examine significance of statistical differences across groups. There was no significant difference in student attendance between students who participated in extracurricular sport activities, students who participated in extracurricular non-sport activities, and students who were dual participants in extracurricular activities, $F(2, 158) = 2.600, p = .077$. Table 4 presents the mean (M) and standard deviation (SD) scores for each group of students.

Research Hypothesis #9 – There is a difference in student participation in extracurricular activities based on socio-economic status.

A chi-square analysis was conducted to examine the differences across socio-economic groups, based on participation in the federal free and reduced price lunch program. The data used from the chi-square analysis is shown in Table 5.

Table 5

Student Participation in Extracurricular Activities and Participation in the Free and Reduced Price Lunch Program

	Full Pay	Free or Reduced	Total
Participants in Extracurricular Activities	146 67.0%	15 26.3%	161 58.5%
Non-Participants in Extracurricular Activities	72 33.0%	42 73.7%	114 41.5%
All Students	218 100.0%	57 100.0%	275 100.0%

Table 5 Interpretation:

- 67.0% of students in the Pay group are participants
- 26.3% of students in the Free or Reduced group are participants
- 33.0% of students in the Pay group are non-participants
- 73.7% of students in the Free or Reduced group are non-participants

A significant difference for student participation in extracurricular activities based on students' socio-economic status was identified ($\chi^2(1) = 30.775, p < .001$). Within the Full Pay group there were over two times more participants in extracurricular activities (67.0% to 33.0%), and within the Free or Reduced group there were only one third the participants in extracurricular activities (26.3% to 73.7%).

Research Hypothesis #10 – There is a difference in student participation in extracurricular activities based on race.

A chi-square analysis was conducted to examine the differences across racial groups. The data used in the chi-square analysis is shown in Table 6.

Table 6

Student Participation in Extracurricular Activities and Student Race

	White Not Hispanic	Hispanic	Other	TOTAL
Participants in Extracurricular Activities	139 68.5%	17 27.4%	5 50.0%	161 58.5%
Non-Participants in Extracurricular Activities	64 31.5%	45 72.6%	5 50.0%	114 41.5%
All Students	203 100.0%	62 100.0%	10 100.0%	275 100.0%

Table 6 Interpretation:

- 68.5% of White, not Hispanic students are participants
- 27.4% of Hispanic students are participants
- 50.0% of Asian/Pacific Islander, American Indian/Alaskan Native, or Black Not Hispanic students are participants
- 31.5% of White, not Hispanic students are non-participants
- 72.6% of Hispanic students are non-participants
- 50.0% of Asian/Pacific Islander, American Indian/Alaskan Native, or Black Not Hispanic students are non-participants

A significant difference for student participation in extracurricular activities based on students' race was identified ($\chi^2(2) = 33.294$, $p < .001$). Within the White not Hispanic students, there were over two times more participants in extracurricular activities (68.5% to 31.5%), and within Hispanic students there were only one third the participants in extracurricular activities (27.4% to 72.6%).

Summary

The following information summarizes the relationships found or not found for the ten research questions identified in this study.

There were Relationships Found for Five Research Questions

- *Research Question #1 – Is there a difference between the grade point averages of students who participated in extracurricular activities and the grade point averages of students who did not participate in extracurricular activities?* Students participating in extracurricular activities were found to have a significantly higher grade point average than those students who did not participate in extracurricular activities.
- *Research Question #3 – Is there a difference between the attendance of students who participated in extracurricular activities and the attendance of students who did not participate in extracurricular activities?* Students who participated in extracurricular activities were found to have a significantly higher rate of school attendance than those students who did not participate in extracurricular activities.
- *Research Question #6 – Is there a difference between the behavior of students who participated in extracurricular sport activities and the behavior of students who participated in extracurricular non-sport activities?* The accumulation of student disciplinary referrals for students participating in only extracurricular sport activities and students who participated in only extracurricular non-sport activities was found to be significantly different. Students who participated in only extracurricular sport activities received

more office referrals than students who participated in only extracurricular non-sport activities.

- *Research Question #9 – Is there a difference in student participation in extracurricular activities based on socio-economic status?* A significant difference for student participation in extracurricular activities based on students' socio-economic status was identified. Within the Full Pay group there were over two times more participants in extracurricular activities, and within the Free or Reduced group there were only one third the participants in extracurricular activities.
- *Research Question #10 – Is there a difference in student participation in extracurricular activities based on race?* A significant difference for student participation in extracurricular activities based on students' race was identified. Within the White not Hispanic students, there were over two times more participants in extracurricular activities, and within Hispanic students there were only one third the participants in extracurricular activities.

There were No Relationships Found for Five Research Questions

- *Research Question #2 – Is there a difference between the grade point averages of students who participated in only extracurricular sport activities and the grade point averages of students who participated in only extracurricular non-sport activities?* The grade point averages of students participating in only extracurricular sport activities were not found to be significantly different than the grade point averages of those students' who participated in only extracurricular non-sport activities.

- *Research Question #4 – Is there a difference between the attendance of students who participated in extracurricular sport activities and the attendance of students who participated in extracurricular non-sport activities?* The attendance of students participating in only extracurricular sport activities was not found to be significantly different than the attendance of those students who participated in only extracurricular non-sport activities
- *Research Question #5 – Is there a difference between the behavior of students who participated in extracurricular activities and the behavior of students who did not participate in extracurricular activities?* Student behavior for participants in extracurricular activities was not found to be significantly different than student behavior for those students who did not participate in extracurricular activities.
- *Research Question #7 – Is there a difference in the grade point averages of students who participated in extracurricular sport activities, the grade point averages of students who participated in extracurricular non-sport activities, and the grade point averages of students who participated in both?* There was no significant difference in student grade point average between students who participated in extracurricular sport activities, students who participated in extracurricular non-sport activities, and students who were dual participants in extracurricular activities.
- *Research Question #8 – Is there a difference in the attendance of students who participated in extracurricular sport activities, the attendance of students who participated in extracurricular non-sport activities, and the attendance of*

students who participated in both? There was no significant difference in student attendance between students who participated in extracurricular sport activities, students who participated in extracurricular non-sport activities, and students who were dual participants in extracurricular activities.

Chapter 5

Summary, Conclusions, and Recommendations

Introduction

The purpose of the study was to examine possible correlations between participation in extracurricular activities and student achievement, participation in extracurricular activities and attendance, and participation in extracurricular activities and behavior.

This study was designed with the hope of adding to the literature about the potential value of student participation in extracurricular activities. Minimal research was found in the area of how student participation in sport activities compares to student participation in non-sport activities, so research questions within this study were designed to examine this issue.

Current economic conditions enhance the relevancy of a study of this nature. With school districts state aid being cut across the nation, school officials must identify areas in which they can cut money from their budgets. Oftentimes, extracurricular activities are looked at as an area to cut expenses because they are often perceived as being merely an “extra” component of the educational process. The data based decision-making process has been prevalent in school districts for years; nevertheless, this study was aimed at providing evidence about student participation in sport and/or non-sport activities. School officials are provided meaningful data from this study to use in making informed decisions on the cuts to make in their budgets. The completion of this study provides school officials information that will better allow them to understand how student participation in sport activities maybe compared to student participation in

non-sport activities. The results of this study are not intended to be used when making decisions on whether or not to eliminate programs, but rather to provide school district officials with general information in this area.

The setting for this study was a mid-sized high school in a western Nebraska town. The population of the town is approximately 14,800 people. The enrollment for the district is nearly 2,900 students. The high school's enrollment is approximately 850 students. The 2007-2008 and 2008-2009 high school graduates were the population for the study.

The necessary data required to answer the research questions included in this study was obtained from the high school activities' office and the school district's student management system, Infinite Campus. Data were collected about students' grade point average, behavior, attendance, ethnicity, and socio-economic status. Students were given specific codes based on their ethnicity, socio-economic status, whether or not they participated in extracurricular activities, and if they did participate, whether they were a sport, non-sport, or dual participant. Statistical tests of the data were then conducted to identify whether or not a relationship existed for each of the nine research questions.

Discussion of Findings

Research Question #1

Is there a difference between the grade point averages of students who participated in extracurricular activities and the grade point averages of students who did not participate in extracurricular activities?

Student grade point averages for their senior year were used in this analysis. Student grade point averages are computed on a 4.0 scale. A total of 275 students' grade

point averages were examined, including 114 non-participants and 161 participants.

There was a significant difference in student grade point averages between those students who participated in extracurricular activities and those students who did not participate in extracurricular activities. Students participating in extracurricular activities were found to have a significantly higher grade point average ($M = 3.06$, $SD = .789$) than those students who did not participate in extracurricular activities ($M = 2.39$, $SD = .789$).

The results of this analysis are similar to information collected through the literature review. Encouragement of students to become involved in extracurricular activities at young age should be increased by the results of this study. The evidence that student participation in extracurricular activities has a positive effect on a student's grade point average should be encouraging to school officials, parents, activity sponsors, and community members.

Research Question #2

Is there a difference between the grade point averages of students who participated in only extracurricular sport activities and the grade point averages of students who participated in only extracurricular non-sport activities?

Students were identified as sport and non-sport participants based on their participation in NSAA sponsored activities. Students who participated in both sport and non-sport activities were not included in this analysis. Student grade point averages for their senior year were used in this analysis. There was no significant difference in student grade point averages between those students who participated in only extracurricular sport activities and those students who participated in only extracurricular non-sport activities. The grade point averages of students participating in only

extracurricular sport activities ($M = 3.06$, $SD = .797$) were not found to be significantly different than the grade point averages of those students who participated in only extracurricular non-sport activities ($M = 2.95$, $SD = .763$)

The results of this analysis can be interpreted that, in terms of a student's grade point average, it does not matter whether a student is involved in a sport activity or a non-sport activity. Therefore, school officials, parents, activities sponsors, and community members cannot argue that it is better for a student's grade point average for them to participate in sport activities over non-sport activities, or vice versa.

Research Question #3

Is there a difference between the attendance of students who participated in extracurricular activities and the attendance of students who did not participate in extracurricular activities?

Student attendance for their senior year was used in this analysis. There was a significant difference in student attendance between those students who participated in extracurricular activities and those students who did not participate in extracurricular activities. Students who participated in extracurricular activities were found to have a significantly higher rate of school attendance ($M = 94.3\%$, $SD = .053$) than those students who did not participate in extracurricular activities ($M = 89.8\%$, $SD = .072$).

The results of this test are similar to information collected through the literature review. Encouragement of students to become involved in extracurricular activities at a young age should be increased by the results of this study. The evidence that student participation in extracurricular activities has a positive effect on a student's attendance at

school should be encouraging to school officials, parents, activity sponsors, and community members.

Research Question #4

Is there a difference between the attendance of students who participated in extracurricular sport activities and the attendance of students who participated in extracurricular non-sport activities?

Students were identified as sport and non-sport participants based on their participation in NSAA sponsored activities. Students who participated in both sport and non-sport activities were not included in this analysis. Student attendance for their senior year was used in this analysis. There was no significant difference in student attendance between those students who participated in only extracurricular sport activities and those students who participated in only extracurricular non-sport activities. Students participating in only extracurricular sport activities attendance at school ($M = 94.0\%$, $SD = .045$) was not found to be significantly different than those students' attendance who participated in only extracurricular non-sport activities ($M = 93.4\%$, $SD = .067$)

The results of this test can be interpreted that, in terms of a student's attendance at school, it does not matter whether a student is involved in sport activities or in non-sport activities. Therefore, school officials, parents, activities sponsors, and community members cannot argue that it is better for a student's attendance for them to participate in sport activities over non-sport activities, or vice versa.

Research Question #5

Is there a difference between the behavior of students who participated in extracurricular activities and the behavior of students who did not participate in extracurricular activities?

The number of disciplinary referrals received for students for their senior year was used in this analysis. There was no significant difference in student behavior between those students who participated in extracurricular activities and those students who did not participate in extracurricular activities.

These data must be interpreted with caution. The large number of students who received no disciplinary referrals (zero) affected the normality of this data. The results of this analysis can be interpreted that, in terms of a student's behavior, it does not matter whether a student is involved in extracurricular activities or not. Therefore, based on this study, school officials, parents, activities sponsors, and community members cannot argue that it is better for a student's behavior if they participate in extracurricular activities or do not participate.

Research Question #6

Is there a difference between the behavior of students who participated in extracurricular sport activities and the behavior of students who participated in extracurricular non-sport activities?

The number of disciplinary referrals received for students for their senior year was used in this analysis. There was a significant difference in student behavior between those students who participated in only extracurricular sport activities and those students who participated in only extracurricular non-sport activities. Student referrals for

participants in only extracurricular sport activities was found to be significantly different than for those students who participated in only extracurricular non-sport activities. Students who participated in only extracurricular sport activities received more office referrals than students who participated in only extracurricular non-sport activities.

Similar to the previous research question, this data must also be interpreted with caution. In contrast to a student's grade point average and attendance for sport participants versus non-sport participants, student behavior in school was significantly different. The results of this analysis can be interpreted that in terms of a student's behavior that students who participate in non-sport activities are less likely to violate the school's behavioral expectations than those students who participate in sport activities. Nevertheless, these results may formulate the basis for a disagreement amongst sport activity sponsors and non-sport activity sponsors about whether it is better for student behavior for students to participate in non-sport activities over sport activities.

Research Question #7

Is there a difference in the grade point averages of students who participated in extracurricular sport activities, the grade point averages of students who participated in extracurricular non-sport activities, and the grade point averages of students who participated in both?

Student grade point averages for their senior year were used in this analysis. Students were identified as sport and non-sport participants based on their participation in NSAA sponsored activities. Students who participated in both sport and non-sport activities were included in this analysis and were identified as dual participants. Dual participants are those students who participated in both an NSAA sponsored sport and

non-sport activity during their senior year. Students participating in extracurricular sport activities ($M = 3.06$, $SD = .797$), extracurricular non-sport activities ($M = 2.95$, $SD = .763$), and students who were dual participants ($M = 3.21$, $SD = .804$) were not found to have a significantly different grade point average. There was no significant difference in student grade point average between students who participated in only extracurricular sport activities, students who participated in only extracurricular non-sport activities, and students who were dual participants in extracurricular activities.

Research Question #8

Is there a difference in the attendance of students who participated in extracurricular sport activities, the attendance of students who participated in extracurricular non-sport activities, and the attendance of students who participated in both?

Student attendance for their senior year was used in this analysis. Students were identified as sport and non-sport participants based on their participation in NSAA sponsored activities. Students who participated in both sport and non-sport activities were included in this analysis and were identified as dual participants. Dual participants are those students who participated in both an NSAA sponsored sport and non-sport activity during their senior year. There was no significant difference in attendance between students participating in extracurricular sport activities ($M = 94.0\%$, $SD = .045$), extracurricular non-sport activities ($M = 93.4\%$, $SD = .067$), and students who were dual participants ($M = 95.8\%$, $SD = .037$). There was no significant difference in student attendance between students who participated in only extracurricular sport activities,

students who participated in only extracurricular non-sport activities, and students who were dual participants in extracurricular activities.

The statistical results of this analysis are consistent with research question 4 (no significant difference) even when dual participants were factored in the test.

Research Question #9

Is there a difference in student participation in extracurricular activities based on socio-economic status?

In order to measure socio-economic status, students were identified by the following school lunch criteria: Free, Reduced, Pay. Due to a limited number of students in the data set receiving reduced lunches, the students in the Reduced and Free categories were combined. A total of 275 students' participation and socio-economic status was analyzed, including 114 non-participants and 161 participants. There was a significant difference for student participation in extracurricular activities based on students' socio-economic status. The following results were gathered from this analysis:

- 63.2% of non-participants pay for school lunch,
- 36.8% of non-participants qualify for free or reduced school lunch,
- 90.7% of participants pay for school lunch, and
- 9.3% of participants qualify for free or reduced school lunch.

These results indicate that socio-economic status was related to student participation in extracurricular activities. It is unfortunate to see these results, after earlier research questions indicated that participation has a positive effect on grade point average and attendance. Students with a lower socio-economic status may not have been provided an opportunity to get involved in certain extracurricular activities at a younger

age, thus they were behind their peers once they reached high school. For example, if a student was never given the opportunity to play basketball at a young age and develop the necessary skills, it would make it very difficult for them to make the high school basketball team as a senior. One issue that may slightly affect these results is that if a student did not return the necessary paperwork to apply for free or reduced lunch then they would by default remain in the pay group. Overall, this analysis shows that the majority of participants (90.7%) at this high school are in a higher socio-economic status group based on school lunch criteria, which makes the results somewhat unfortunate considering the fact that about 44% of the district's students receive free and/or reduced lunch (Nebraska Department of Education, 2009).

Research Question #10

Is there a difference in student participation in extracurricular activities based on race?

In order to measure race, student identification into one of the following five categories used for Nebraska Department of Education reports was utilized: White Not Hispanic, Asian/Pacific Islander, Hispanic, American Indian/Alaskan Native, and Black Not Hispanic. Upon completing the data analysis it was determined that due to a lack of students in the Asian/Pacific Islander, American Indian/Alaskan Native, and Black Not Hispanic groups that the analysis would be modified into three groups; White Not Hispanic, Hispanic, and Other. The "Other" category combined the three groups with too few students in them. A total of 275 students' participation and ethnicity was analyzed, including 114 non-participants and 161 participants. There is a significant difference for student participation in extracurricular activities based on students' race.

The following descriptive statistics were gathered from this analysis:

- 56.1% of non-participants are White, not Hispanic;
- 39.5% of non-participants are Hispanic;
- 4.4% of non-participants are either Asian/Pacific Islander, American Indian/Alaskan Native, or Black Not Hispanic;
- 86.3% of participants are White, not Hispanic;
- 10.6% of participants are Hispanic; and
- 3.1% of participants either Asian/Pacific Islander, American Indian/Alaskan Native, or Black Not Hispanic.

These results indicate that the majority of senior participants in extracurricular activities at this high school are White (86.3%). It is unfortunate to see these results, after earlier research questions indicated that participation has a positive effect on grade point average and attendance. More importantly, it is even more concerning considering the fact that approximately 39% of the student population is either Hispanic, Native American, Asian, or Black students (Nebraska Department of Education, 2009).

Conclusions

The scope of this study was delimited to the data about 2007-2008 and 2008-2009 graduates of a high school in western Nebraska. The results of the study showed a number of key points:

1. There was a statistically significant relationship between participation in extracurricular activities and student achievement. Students who participated in extracurricular activities had higher grade point averages than students who did not participate.

2. There was no statistically significant difference between grade point averages of students who participated in only sports activities and the grade point averages of students who participated in only non-sport activities.
3. There was a statistically significant relationship between participation in extracurricular activities and student attendance. Students who participated in extracurricular activities had a higher rate of school attendance than students who did not participate.
4. There was no statistically significant difference between attendance of students who participated in only sports activities and the attendance of students who participated in only non-sport activities.
5. There was no statistically significant difference between participation in extracurricular activities and student behavior.
6. There was a statistically significant relationship between behavior of students who participated in only sports activities and the behavior of students who participated in only non-sport activities. Students who participated in only sport activities received more office referrals than students who participated in only non-sport activities.
7. There was no statistically significant difference between grade point averages of students who participated in extracurricular sport activities, grade point averages of students who participated in extracurricular non-sport activities, and grade point averages of students who participated in both extracurricular sport and non-sport activities.

8. There was no statistically significant difference between attendance of students who participated in extracurricular sport activities, attendance of students who participated in extracurricular non-sport activities, and attendance of students who participated in both extracurricular sport and non-sport activities.
9. There was a statistically significant relationship between participation in extracurricular activities and a student's socio-economic status. Students whose families have a higher level of socio-economic status were more likely to participate in extracurricular activities.

There was a statistically significant relationship between participation in extracurricular activities and student race. White students were more likely to participate in extracurricular activities than Hispanic and other racial ethnic backgrounds.

Recommendations

This study provides for an addition to the literature base on extracurricular activities in high schools. As is the case with most research projects, there is still much more that can be explored in this area. The results of this study, specifically for Research Hypotheses #9 and #10, were rather intriguing and thought provoking. Results of this study showed that participation in extracurricular activities has a positive relationship with both student achievement and student attendance; however, statistical tests of Research Hypotheses #9 and #10 provided evidence that there is a glaring disparity in participation rates based on socio-economic status and race. The results of testing these two hypotheses are disappointing, and more importantly cause for concern considering the positive impact participation in extracurricular activities can have on student

achievement and student attendance. The results provide evidence that future research in this area should be aimed at identifying strategies targeted at closing the gap for participation rates between socio-economic status levels and race.

Additionally, this study presented student data for the two most recent graduating classes for one Class B high school in Nebraska; further research could examine graduating classes from multiple schools or graduates of more than the previous two years. Future research in this area could also include a comparison of a rural/small school population to an urban/large school population. Additional research could be completed for more than a student's senior year, a study could examine all four years of a student's data to determine if a student's grade level in school has any impact on student achievement, student attendance, student behavior, or participation.

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Appendix A

Superintendent Approval Letter

24 November 2009

Dear Sir/Madam:

I am writing to give my approval of Andrew Dick's research project and the study and use of existing student data from [redacted] Public Schools in connection with his dissertation entitled "The Relationship of Participation in Extracurricular Activities to Student Achievement, Student Attendance, and Student Behavior in a Nebraska School District." Mr. Dick has my full approval to access our school district's student management system in order to obtain the necessary student information he needs to complete his dissertation.

It is a pleasure to help Mr. Dick who is an outstanding educator and will give back much more than he takes from the [redacted] School District.

Sincerely,

Appendix B

Institutional Review Board Approval Letter



January 25, 2010

Andrew Dick
Department of Educational Administration
2433 4th Ave Scottsbluff, NE 69361

Donald Uerling
Department of Educational Administration
134 TEAC UNL 68588-0360

IRB Number: 20100110408EP
Project ID: 10408
Project Title: The Relationship of Participation in Extracurricular Activities to Student Achievement, Student Attendance, and Student Behavior in a Nebraska School District

Dear Andrew:

This letter is to officially notify you of the approval of your project by the Institutional Review Board (IRB) for the Protection of Human Subjects. It is the Board's opinion that you have provided adequate safeguards for the rights and welfare of the participants in this study based on the information provided. Your proposal is in compliance with this institution's Federal Wide Assurance 00002258 and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46).

Date of EP Review: 12/18/2009

You are authorized to implement this study as of the Date of Final Approval: 01/25/2010. This approval is Valid Until: 01/24/2011.

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:

- Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
- Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
- Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
- Any breach in confidentiality or compromise in data privacy related to the subject or others; or
- Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

For projects which continue beyond one year from the starting date, the IRB will request continuing review and update of the research project. Your study will be due for continuing review as indicated above. The investigator must also advise the Board when this study is finished or discontinued by completing the enclosed Protocol Final Report form and returning it to the Institutional Review Board.

If you have any questions, please contact the IRB office at 472-6965.

Sincerely,
{Mario's Signature}
Mario Scalora, Ph.D.
Chair for the IRB


